

# Quick Scores Examples

## EXAMPLE 1

Student's raw score = 23

Total number of test items = 50

**STEP 1:** Convert the raw score into a percentage by dividing the raw number of correct answers by the total test items.

$$\begin{aligned} & 23 \text{ (raw score)} / 50 \text{ (total test items)} \\ & = 46.0000 \end{aligned}$$

**STEP 2:** Determine the cube root ( $^{1/3}$ ) of the percentage from Step 1.

$$46.0000 ^{(1/3)} = 3.5830$$

**STEP 3:** Multiply the result of Step 2 by the constant term, which is 21.5443.

- The constant term makes the maximum quick score equal 100 and the minimum quick score equal 0; thus, creating a range from 0-100, which aligns with a traditional 100-point grading scale.

$$3.5830 \times 21.5443 = 77.1932$$

**Quick Score = 77**

## EXAMPLE 2

Student's raw score = 23

Total number of test items = 64

**STEP 1:** Convert the raw score into a percentage by dividing the raw number of correct answers by the total test items.

$$\begin{aligned} & 23 \text{ (raw score)} / 64 \text{ (total test items)} \\ & = 35.9375 \end{aligned}$$

**STEP 2:** Determine the cube root ( $^{1/3}$ ) of the percentage from Step 1.

$$35.9375 ^{(1/3)} = 3.3000$$

**STEP 3:** Multiply the result of Step 2 by the constant term, which is 21.5443.

- The constant term makes the maximum quick score equal 100 and the minimum quick score equal 0; thus, creating a range from 0-100, which aligns with a traditional 100-point grading scale.

$$3.3000 \times 21.5443 = 72.0962$$

**Quick Score = 72**